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JUL 28 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

Listing of Claims:

1. (original) A device for measuring the appearance of an object that is based on a digital camera platform design, said device comprising:

(a) a color sensor for capturing an image of an object and collecting appearance data from said object;

(b) a memory storage system for saving said captured image;

(c) a display on said device for displaying the captured image; and

(d) a CPU internal to said device allowing interpretation and processing of said appearance data to determine appearance factors for said image.

2(original). A device as defined in claim 1 that is a handheld device.

3. (original) A device as defined in claim 1, wherein said sensor for capturing the image is selected from a group comprising of a CMOS sensor, a CCD sensor, and an X3 sensor based on the color separation properties of silicon.

4. (original) A device as defined in claim 1, wherein said display device comprises an LCD panel.

5. (original) A device as defined in claim 4, wherein said LCD panel is able to display interpretive maps of the captured image.

6. (original) A device as defined in claim 1, wherein said object is a dental object.

7. (original) A device as defined in claim 6, wherein said dental object comprises one of a crown, plate, bridge and replacement tooth.

8. (original) A device as defined in claim 1, further comprising a microphone to record voice information to describe and/or annotate the captured image of the object.

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9. (original) A device as defined in claim 8, wherein said CPU processor links said captured image of the object with said recorded voice information describing and/or annotating said captured image of the object.

10. (original) A device as defined in Claim 1 further comprising a keypad for inputting textual information about the image of the object.

11. (original) A device as defined in Claim 11 wherein said CPU processor links said inputted textual information with said image of the object.

12. (original) A device as defined in Claim 9 further comprising an internal speaker to play the recorded attached voice annotations.

13. (original) A device as defined in Claim 1 further comprising a means for illuminating said object.

14. (original) A device as defined in Claim 13 wherein said illumination means comprises white light emitting diodes.

15. (original) A device as defined in Claim 1 further comprising a means for altering the illumination pattern and depth of focus attached on the front of said device.

16. (original) A device as defined in Claim 1 wherein said CPU comprises means for connecting to and communicating with a computer network.

17. (original) A device as defined in Claim 16 wherein said computer network is the Internet.

18. (original) A device as defined in Claim 16 wherein said CPU transmits said image of said object to said computer network.

19. (original) A device as defined in Claim 16 wherein said CPU receives software updates and enhancements from said computer network.

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20. (original) A device as defined in Claim 16 wherein said CPU receives information regarding maintenance check ups and device problem diagnoses from said computer network.

21. (original) A handheld MAT device as defined in Claim 2, wherein said device comprises a means for calibrating said device, said calibration means comprising one or more of:

- (a) a cradle for holding the MAT device, said cradle housing designed to accurately position the calibration target correctly for the MAT device
- (b) providing the calibration process with a sleep mode;
- (c) spatial compensation means for known and consistent spatial variations in the image;
- (d) light feedback control means using camera output to modify the light source;
- (e) means for implementing the concept of absolute color standards for inter-device communication;
- (f) process for selecting the reference colors of the calibration standard; and/or
- (g) means for signaling need for replacement of calibration color patch.

22. (original) A device as defined in Claim 21 wherein said cradle fits over the nose of said device and serves as a stand for the device.

23. (original) A device as defined in Claim 21 wherein either said device or said cradle is provided with a proximity switch for automatically starting the calibration device when the device is placed in the cradle and/or automatically stopping the calibration device when the device is removed from the cradle.

24. (original) A device as defined in Claim 21 wherein said device is provided with a calibration target; said calibration target mounted in a spring loaded door located over the exit of said handheld device.

25. (original) A device as defined in Claim 24 further comprising an aseptic shield provided with a tongue means for pushing open said door when the shield is placed over the nose of the device.

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26. (original) A device as defined in Claim 24 wherein said calibration target is mounted on the rear of said door.

27. (original) A device as defined in Claim 24 further comprising a proximity sensor mounted in the handpiece to detect when the door is fully closed.

28. (original) A device as defined in Claim 21 wherein said sleep mode comprises means for changing the illumination intensity if the unit has not been used for a set period of time.

29. (original) A device as defined in Claim 21 wherein calibration patch is provided with bar codes for identifying the calibration patch.

30.- 40. (cancelled)

41. (original) A computer aided shade design process wherein a said MAT system is as defined in Claim 1.

42. - 45. (cancelled)

46. (original) A computer aided dental restoration design process wherein a said MAT system is as defined in Claim 1.

47. - 51. (canceled)